

Администрирование сетевых подсистем

Лабораторная работа №14

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Цель работы

Получение практических навыков настройки файловых служб Samba и разграничения доступа пользователей к общим ресурсам.

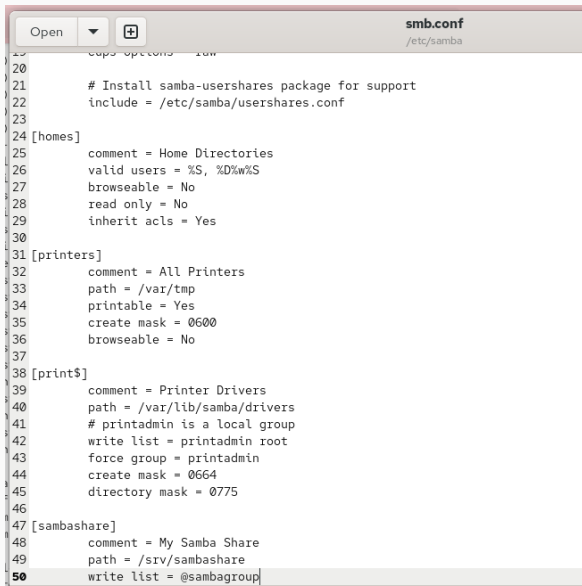
Ход выполнения

```
Installed:
cifs-utils-7.2-1.el10.x86_64          libnetapi-4.22.4-106.el10.x86_64      samba-4.22.4-106.el10.x86_64
samba-client-4.22.4-106.el10.x86_64  samba-common-tools-4.22.4-106.el10.x86_64  samba-dcerpc-4.22.4-106.el10.x86_64
samba-ldb-ldap-modules-4.22.4-106.el10.x86_64  samba-libs-4.22.4-106.el10.x86_64

Complete!
[root@server.dgavdadaev.net server]# groupadd -g 1010 sambagroup
[root@server.dgavdadaev.net server]# usermod -sG sambagroup dgavdadaev
[root@server.dgavdadaev.net server]# mkdir -p /srv/smbshare
[root@server.dgavdadaev.net server]# █
```

Рис. 1: Установка пакетов Samba

Настройка smb.conf



```
20 cups_options = raw
21
22 # Install samba-usershares package for support
23 include = /etc/samba/usershares.conf
24 [homes]
25     comment = Home Directories
26     valid users = %S, %D%w%S
27     browseable = No
28     read only = No
29     inherit acls = Yes
30
31 [printers]
32     comment = All Printers
33     path = /var/tmp
34     printable = Yes
35     create mask = 0600
36     browseable = No
37
38 [print$]
39     comment = Printer Drivers
40     path = /var/lib/samba/drivers
41     # printadmin is a local group
42     write list = printadmin root
43     force group = printadmin
44     create mask = 0664
45     directory mask = 0775
46
47 [smbashare]
48     comment = My Samba Share
49     path = /srv/smbashare
50     write list = @sambagroup
```

Запуск службы и проверка

```
[root@server.dgavdadaev.net server]#
[root@server.dgavdadaev.net server]# systemctl start smb.service
[root@server.dgavdadaev.net server]# systemctl enable smb.service
Created symlink '/etc/systemd/system/multi-user.target.wants/smb.service' -> '/usr/lib/systemd/system/smb.service'.
[root@server.dgavdadaev.net server]# systemctl status smb.service
● smb.service - Samba SMB Daemon
   Loaded: loaded (/usr/lib/systemd/system/smb.service; enabled; preset: disabled)
   Active: active (running) since Sat 2025-12-06 08:51:06 UTC; 14s ago
     Invocation: 98900b55d85449e0aaelf66389630fd7
       Docs: man:smbd(8)
             man:samba(7)
             man:smb.conf(5)
    Main PID: 16146 (smbd)
      Status: "smbd: ready to serve connections..."
        Tasks: 3 (limit: 10278)
       Memory: 13.5M (peak: 13.8M)
          CPU: 30ms
       CGroup: /system.slice/smb.service
               └─16146 /usr/sbin/smbd --foreground --no-process-group
                 └─16149 /usr/sbin/smbd --foreground --no-process-group
                   └─16150 /usr/sbin/smbd --foreground --no-process-group

Dec 06 08:51:06 server.dgavdadaev.net systemd[1]: Starting smb.service - Samba SMB Daemon...
Dec 06 08:51:06 server.dgavdadaev.net systemd[1]: Started smb.service - Samba SMB Daemon.
[root@server.dgavdadaev.net server]# smbclient -L //server
Password for [DGAVDADADEV-NET\root]:
Anonymous login successful

      Sharename      Type            Comment
      -----
      print$         Disk            Printer Drivers
      sambashare     Disk            My Samba Share
      IPC$           IPC             IPC Service (Samba 4.22.4)

SMB1 disabled -- no workgroup available
[root@server.dgavdadaev.net server]#
```

Рис. 3: Проверка smbclient

```
[root@server.dgavdadaev.net server]#  
[root@server.dgavdadaev.net server]# firewall-cmd --add-service=samba  
success  
[root@server.dgavdadaev.net server]# firewall-cmd --add-service=samba --permanent  
success  
[root@server.dgavdadaev.net server]# firewall-cmd --reload  
success  
[root@server.dgavdadaev.net server]# chgrp sambagroup /srv/sambashare/  
[root@server.dgavdadaev.net server]# chmod g=rwx /srv/sambashare/  
[root@server.dgavdadaev.net server]# cd /srv  
[root@server.dgavdadaev.net srv]# ls -Z  
unconfined_u:object_r:nfs_t:s0 nfs unconfined_u:object_r:var_t:s0 sambashare  
[root@server.dgavdadaev.net srv]# semanage fcontext -a -t samba_share_t "/srv/sambashare(/.*)?"  
[root@server.dgavdadaev.net srv]# restorecon -vR /srv/sambashare/  
Relabeled /srv/sambashare from unconfined_u:object_r:var_t:s0 to unconfined_u:object_r:samba_share_t:s0  
[root@server.dgavdadaev.net srv]# ls -Z  
unconfined_u:object_r:nfs_t:s0 nfs unconfined_u:object_r:samba_share_t:s0 sambashare  
[root@server.dgavdadaev.net srv]# setsebool samba_export_all_rw 1  
[root@server.dgavdadaev.net srv]# setsebool samba_export_all_rw 1 -P  
[root@server.dgavdadaev.net srv]# █
```

Рис. 4: Настройки firewall и SELinux


```
[root@server.dgavdadaev.net srv]#  
[root@server.dgavdadaev.net srv]# smbpasswd -L -a dgavdadaev  
New SMB password:  
Retype new SMB password:  
Added user dgavdadaev.  
[root@server.dgavdadaev.net srv]# █
```

Рис. 5: Добавление SMB-пользователя

```
Installed:
  cifs-utils-7.2-1.el10.x86_64                samba-client-4.22.4-106.el10.x86_64

Complete!
[root@client.dgavdadaev.net client]# less /usr/lib/firewalld/services/samba-client.xml
[root@client.dgavdadaev.net client]#
[root@client.dgavdadaev.net client]# firewall-cmd --add-service=samba-client
success
[root@client.dgavdadaev.net client]# firewall-cmd --add-service=samba-client --permanent
success
[root@client.dgavdadaev.net client]# firewall-cmd --reload
success
[root@client.dgavdadaev.net client]# groupadd -g 1010 sambagroup
[root@client.dgavdadaev.net client]# usermod -aG sambagroup dgavdadaev
[root@client.dgavdadaev.net client]#
```

Рис. 6: Установка клиента

```
[root@client.dgavdadaev.net client]#  
[root@client.dgavdadaev.net client]# smbclient -L //server  
Password for [DGAVDADAEV-NET\root]:  
Anonymous login successful
```

Sharename	Type	Comment
-----	----	-----
print\$	Disk	Printer Drivers
smbashare	Disk	My Samba Share
IPC\$	IPC	IPC Service (Samba 4.22.4)

SMB1 disabled -- no workgroup available

```
[root@client.dgavdadaev.net client]# smbclient -L //server -U dgavdadaev  
Password for [DGAVDADAEV-NET\dgavdadaev]:
```

Sharename	Type	Comment
-----	----	-----
print\$	Disk	Printer Drivers
smbashare	Disk	My Samba Share
IPC\$	IPC	IPC Service (Samba 4.22.4)
dgavdadaev	Disk	Home Directories

SMB1 disabled -- no workgroup available

```
[root@client.dgavdadaev.net client]# █
```

Рис. 7: Просмотр ресурсов

```
[root@client.dgavdadaev.net client]# mkdir /mnt/samba
[root@client.dgavdadaev.net client]# mount -o username=dgavdadaev,user,rw,uid=dgavdadaev,gid=sambagroup
//server/smbashare /mnt/samba/
Password for dgavdadaev@//server/smbashare:
mount: (hint) your fstab has been modified, but systemd still uses
        the old version; use 'systemctl daemon-reload' to reload.
[root@client.dgavdadaev.net client]# mount | grep mnt
server.dgavdadaev.net:/srv/nfs on /mnt/nfs type nfs4 (rw,relatime,vers=4.2,rsize=262144,wsiz=262144,namlen=255,hard,proto=tcp,timeo=600,retrans=2,sec=sys,clientaddr=192.168.1.30,local_lock=none,addr=192.168.1.1)
server.dgavdadaev.net:/srv/nfs/home/dgavdadaev on /mnt/nfs/home/dgavdadaev type nfs4 (rw,relatime,vers=4.2,rsize=262144,wsiz=262144,namlen=255,hard,proto=tcp,timeo=600,retrans=2,sec=sys,clientaddr=192.168.1.30,local_lock=none,addr=192.168.1.1)
//server/smbashare on /mnt/samba type cifs (rw,nosuid,nodev,noexec,relatime,vers=3.1.1,cache=strict,upcall_target=app,username=dgavdadaev,uid=1001,forceuid,gid=1010,forcegid,addr=192.168.1.1,file_mode=0755,dir_mode=0755,soft,nounix,serverino,mapposix,repase=nfs,rsize=4194304,wsiz=4194304,bsiz=1048576,retans=1,echo_interval=60,actimeo=1,closetimeo=1,user)
[root@client.dgavdadaev.net client]#
```

Рис. 8: Монтирование SMB

```
[dgavdadaev@client.dgavdadaev.net dgavdadaev]$  
[dgavdadaev@client.dgavdadaev.net dgavdadaev]$ cd /mnt/samba/  
[dgavdadaev@client.dgavdadaev.net samba]$ ls  
dgavdadaev@server.txt  
[dgavdadaev@client.dgavdadaev.net samba]$ touch dgavdadaev@client.txt  
[dgavdadaev@client.dgavdadaev.net samba]$ ls -l  
total 0  
-rwxr-xr-x. 1 dgavdadaev sambagroup 0 Dec 6 09:09 dgavdadaev@client.txt  
-rwxr-xr-x. 1 dgavdadaev sambagroup 0 Dec 6 08:56 dgavdadaev@server.txt  
[dgavdadaev@client.dgavdadaev.net samba]$
```

Рис. 9: Создание файла на клиенте

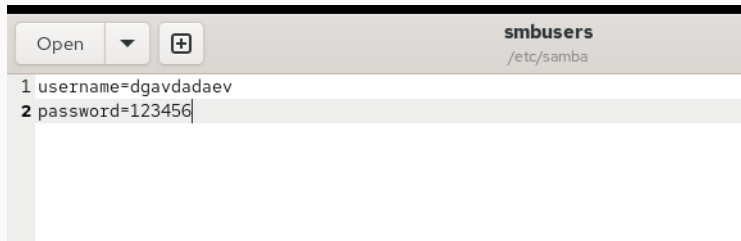


Рис. 10: Файл smbusers

Файл учётных данных и fstab

```
1
2 #
3 # /etc/fstab
4 # Created by anaconda on Wed Sep 3 08:53:23 2025
5 #
6 # Accessible filesystems, by reference, are maintained under '/dev/disk/'.
7 # See man pages fstab(5), findfs(8), mount(8) and/or blkid(8) for more info.
8 #
9 # After editing this file, run 'systemctl daemon-reload' to update systemd
10 # units generated from this file.
11 #
12 UUID=908334c5-81ab-40aa-ad89-1bd296275208 / xfs defaults 0 0
13 UUID=964b6a41-d718-411a-a362-f90f740c04d8 /boot xfs defaults 0 0
14 UUID=2000-E25B /boot/efi vfat umask=0077,shortname=winnt 0 2
15 UUID=7e0ea0d4-0dbc-4e9b-bcd8-a0b4c565de96 /home xfs defaults 0 0
16 UUID=3c01d968-53fe-4cb3-8a7c-cc0f286d9e58 none swap defaults 0 0
17 server.dgavdadaev.net:/srv/nfs /mnt/nfs nfs _netdev 0 0
18 //server/smbashare /mnt/samba cifs user,rw,uid=dgavdadaev,gid=sambagroup,credentials=/etc/samba/
  smbusers,_netdev 0 0
19 #VAGRANT-BEGIN
20 # The contents below are automatically generated by Vagrant. Do not modify.
21 vagrant /vagrant vboxsf uid=1000,gid=1000,_netdev 0 0
22 #VAGRANT-END
```

Рис. 11: fstab

Итоги

- Развёрнут Samba-сервер на Rocky Linux.
- Настроены firewall, SELinux и права доступа.
- Созданы пользователь и SMB-учётная запись.
- Настроен клиент: smbclient, CIFS-монтирование, автоматизация через fstab.
- Подготовлены provisioning-скрипты для автоматического развёртывания.